AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A lamp comprising:

an illuminant section having an illuminant for radiating light having a size determined by an arc length and direction of the arc length along an optical axis of the lamp, the illuminant having a center point;

a lamp reflector for condensing light flux emitted from a center point of the illuminant, the reflector being an ellipsoid of revolution about the optical axis, and the center point of the illuminant being located at an ellipsoidal focus of the lamp reflector and on the optical axis; and

a lamp front glass having a plate-shaped incident surface and a plate-shaped outgoing surface, for receiving the light flux reflected by the lamp reflector through the incident surface and outputting the light flux through the outgoing surface, wherein

the ellipsoid of revolution of the lamp reflector is a deformed aspherical reflection surface which has a rotational symmetry about the optical axis, ~~including a plurality of infinitesimal mirrors arranged so that~~

~~each of the plurality of infinitesimal mirrors reflects a respective light ray corresponding to a respective intersection with a plane containing the lamp front glass, the light rays being obtained by dividing an angular range of the light produced by the illuminant into N uniform angles, where N is a natural number, in a direction from a condensing point on the optical axis, where the light rays intersect, toward the lamp front glass, and~~

~~the infinitesimal mirrors are located at respective intersections between the corresponding light rays and respective lines extending from a reflection surface of an adjacent infinitesimal mirror so that each infinitesimal mirror reflects the corresponding light ray to the respective intersection;~~

at least one of the incident surface and the outgoing surface of the lamp front glass is a deformed aspherical lens surface which has a rotational symmetry about the optical axis,

after the light flux radiated by the illuminate is reflected by the lamp reflector, within an effective light receiving area of the lamp reflector, divergence angles of light rays proximate the optical axis on the outgoing surface of the lamp front glass are smaller than divergence angles of the light rays passing through the outgoing surface of the lamp front glass and remote from the optical axis due to shapes of the aspherical reflection surface and the aspherical lens surface, and

a different power for each radiation direction is applied by the aspherical reflection surface and the aspherical lens surface, suppressing distribution of divergence angles of the light flux at the outgoing surface of the lamp front glass.

2. (Previously Presented) The lamp according to claim 1, wherein the divergence angles of the light flux at a point on the outgoing surface of the lamp front glass become constant.

3. (Previously Presented) A condensing optical system comprising:

the lamp according to claim 1;

an integrator optical system for receiving through an incident plane a light flux output from the lamp, which is condensed on a condensing point of the aspherical lens surface, and for reflecting the light flux at a side surface, and for outputting the light flux through an outgoing plane.

4. (Previously Presented) The condensing optical system according to claim 3, wherein

the integrator optical system has a square pole shape having an incident plane and an outgoing plane with a rectangular shape, and

the integrator optical system comprises

an outgoing aperture having a rectangular area equal in area to the area of the incident surface of the integrator optical system, wherein the outgoing aperture is fixed to the incident plane of the integrated optical system;

a duct-shaped mirror having an incident aperture with a rectangular area which is larger than the area of the outgoing aperture, through which the light flux emitted from the lamp is input; and

four planar mirrors having reflecting surfaces that enclose the optical axis of the integrator optical system, wherein at least a part of the incident light, other than the incident light which is directly input into the planar mirrors is reflected by the reflecting surfaces of the planar mirrors and output through the outgoing aperture.

5. (Previously Presented) An image display device comprising:

the condensing optical system according to claim 3;

a relay optical system for relaying light output from the condensing optical system;

an optical modulation element for adding image information to the light output from the relay optical system, and for outputting the light with the image information;

a projecting optical system for projecting the light with the image information output from the optical modulation element; and

a screen for receiving the light projected by the projecting optical system and for displaying an image based on the image information.

6. (Previously Presented) The image display device according to claim 5, wherein the optical modulation element includes a plurality of mirrors for outputting the light with the image information to the projecting optical system.

7. (Previously Presented) The image display device according to claim 5, wherein the optical modulation element includes a liquid crystal panel for controlling the light with the image information by polarization or light scattering.

8. (New) The lamp according to claim 1, wherein

the aspherical reflection surface includes a plurality of infinitesimal mirrors,

each of the plurality of infinitesimal mirrors reflects a respective light ray corresponding to a respective intersection with a plane containing the lamp front glass, the light rays being obtained by dividing an angular range of the light produced by the illuminant into N uniform angles, where N is a natural number, in a direction from a condensing point on the optical axis, where the light rays intersect, toward the lamp front glass, and

the infinitesimal mirrors are located at respective intersections between the corresponding light rays and respective lines extending from a reflection surface of an adjacent infinitesimal mirror so that each infinitesimal mirror reflects the corresponding light ray to the respective intersection.

This listing of claims replaces all prior versions, and listings, of claims in the application.